

**City of Chattanooga, TN**  
**Personnel Class Specification**

***Class code 0513***

**FLSA: Exempt**

**CLASSIFICATION TITLE: ENGINEERING DESIGNER**

**PURPOSE OF CLASSIFICATION**

The purpose of this classification is to perform technical work functions associated with designing and coordinating civil engineering projects and ensuring projects comply with established design criteria and codes.

**ESSENTIAL FUNCTIONS**

**The following duties are normal for this position. These are not to be construed as exclusive or all-inclusive. Other duties may be required and assigned.**

Designs and coordinates civil engineering projects, ensuring compliance with all applicable codes, laws, rules, regulations, standards, policies and procedures; initiates any actions necessary to correct deviations or violations.

Prepares and maintains city design standards.

Performs computer-aided design and creates conceptual designs; performs geotechnical soil design, hydraulics design, structural design, roadway design, erosion control design, and related calculations.

Coordinates design activities; reviews designs of consultants and inhouse staff; coordinates designs with utility companies; creates preliminary layouts; produces final design drawings; interprets designs for contractors, inspectors, and the public; updates design schedule as needed.

Coordinates project activities; investigates project locations; assembles bid documents and opens bids; performs constructability review; calculates cost estimates; defines boundaries of work for surveyors; defines specification requirements.

Participates in meetings as needed; attends pre-bid meetings and pre-construction meetings; attends construction progress meetings.

Investigates existing sanitary and storm sewer systems; assists with bridge inspections; assists with bridge inspections.

Processes a variety of documentation associated with departmental operations, per established procedures and within designated timeframes; distributes documentation

or retains records as appropriate.

Prepares or completes various forms, reports, correspondence, design drawings, preliminary layouts, contract documents, project lists, cost estimates, meeting minutes, work orders, schedules, or other documents.

Receives various forms, reports, correspondence, design drawings, laboratory reports, technical reports, pay estimates, maps, standards, specifications, regulations, manuals, catalogs, reference materials, or other documentation; reviews, completes, processes, forwards or retains as appropriate.

Operates a computer to enter, retrieve, review or modify data; verifies accuracy of entered data and makes corrections as appropriate; utilizes word processing, spreadsheet, database, scheduling, computer-aided design, or other software programs.

Communicates via telephone and/or two-way radio; provides information; takes and relays messages; responds to requests for service or assistance.

Responds to complaints and questions related to department operations; provides information, researches problems, and initiates problem resolution.

Communicates with supervisor, employees, other departments, designers, engineers, consultants, inspectors, contractors, surveyors, land agents, attorneys, utility companies, property owners, the public, and other individuals as needed to coordinate work activities, review status of work, exchange information, or resolve problems.

Maintains a comprehensive, current knowledge and awareness of applicable laws/regulations; maintains an awareness of new trends and advances in the profession; reads professional literature; maintains professional affiliations; attends workshops and training sessions as appropriate.

### **ADDITIONAL FUNCTIONS**

Operates a motor vehicle to conduct work activities.

Prepares right-of-way, acquisition, and easement acquisition documents.

Copies and distributes blueprints, forms, reports, correspondence, and other related materials.

Initiates/receives facsimile transmission of documents.

Performs other related duties as required.

### **MINIMUM QUALIFICATIONS**

Bachelor's degree in Civil Engineering; supplemented by three (3) years previous experience and/or training that includes computer-aided design of streets and roads, sanitary sewers, stormwater sewers, and related structures; or any equivalent combination of education, training, and experience which provides the requisite

knowledge, skills, and abilities for this job. Must possess and maintain a valid Tennessee Driver's License.

## **PERFORMANCE APTITUDES**

**Data Utilization:** Requires the ability to evaluate, audit, deduce, and/or assess data using established criteria. Includes exercising discretion in determining actual or probable consequences and in referencing such evaluation to identify and select alternatives.

**Human Interaction:** Requires the ability to apply principles of persuasion and/or influence over others in a supervisory capacity.

**Equipment, Machinery, Tools, and Materials Utilization:** Requires the ability to operate, maneuver and/or control the actions of equipment, machinery, tools, and/or materials used in performing essential functions.

**Verbal Aptitude:** Requires the ability to utilize a wide variety of reference, descriptive, advisory and/or design data and information.

**Mathematical Aptitude:** Requires the ability to apply advanced algebraic and/or calculus concepts, to include integration of related functions; ability to perform and interpret statistical calculations which include frequency distributions, reliability and validity of tests, correlation techniques, and factor analysis.

**Functional Reasoning:** Requires the ability to apply principles of influence systems, such as motivation, incentive, and leadership, and to exercise independent judgment to apply facts and principles for developing approaches and techniques to resolve problems.

**Situational Reasoning:** Requires the ability to exercise judgment, decisiveness and creativity in situations involving evaluation of information against measurable or verifiable criteria.

## **ADA COMPLIANCE**

**Physical Ability:** Tasks require the ability to exert light physical effort in sedentary to light work, but which may involve some lifting, carrying, pushing and/or pulling of objects and materials of light weight (5-10 pounds). Tasks may involve extended periods of time at a keyboard or work station.

**Sensory Requirements:** Some tasks require the ability to perceive and discriminate colors or shades of colors, sounds, depth, texture, and visual cues or signals. Some tasks require the ability to communicate orally.

**Environmental Factors:** Performance of essential functions may require exposure to adverse environmental conditions, such as dirt, dust, pollen, rain, fumes, temperature and noise extremes, machinery, traffic hazards, toxic agents, or repetitive motions.

Chattanooga, Tennessee, is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.